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Prompted Automatic Update or Installation of Server Based Systems

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Prompted Automatic Update or Installation of Server Based Systems on Addition of a Removable Media Device

Abstract

In some computing environments, provisioning can be difficult. Disclosed is a technique where through orchestrating a BMC, a service OS, and a system management console such as Intelligent Provisioning, the addition of a media item such as a USB key or DVD can trigger a guided install or update process for a naïve user to perform operations that would otherwise be far too complicated.

Description

This disclosure relates to the field of operating systems.

A technique is disclosed where through orchestrating a BMC, a service OS, and a system management console such as Intelligent Provisioning, the addition of a media item such as a USB key or DVD can trigger a guided install or update process for a naïve user to perform operations that would otherwise be far too complicated for that user.

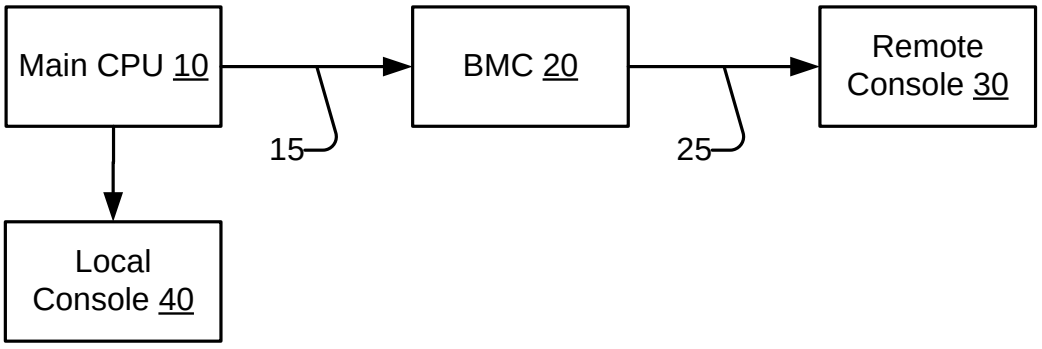
Classically, service OS's would always prompt the user for a media source when the user chooses to perform an operations. For instance, in performing a firmware update from a service OS, the user would need to navigate through the menu systems, and then the system itself would prompt him to provide the media containing the updates (a network URL, USB key, or DVD) through clicking through or typing through the UI itself.

For operating systems using Intelligent Provisioning today, the process relies on the user requesting the operation, then selecting the method the OS media is provided by clicking through a UI. The system provides basic guesses as to what's provided, but the user needs to be coached through the steps using documentation often. This is also too complex for the naive user, who is more familiar with consumer PCs which always have Windows and other software installed out of the box.

According to the present disclosure, and as understood with reference to the Figure, the service OS is extended to include the capability of firing an event on the insertion of a media device (USB key or DVD) and then perform basic checks on the media to determine what it is. In some systems, there is a web of notifications to the various consoles that is then leveraged to prompt and assist the user to do the right thing with the media that was presented. This technique may be superficially similar to the 'plug and play' media that has existed for years in some computer operating systems – but is unique in that it is used exclusively to automate devops tasks that are not handled through earlier methods. This is not 'plug and play' as much as 'plug and help': the system will find out what the user is trying to do and help push him to do it correctly based on the media added. It also runs through a sophisticated signaling system that connects together users and hardware components that might be thousands of miles apart to form a seamless whole for the system user.

From the main CPU 10, a media notification service fires an event from the OS layer into the provisioning application, which can then dispatch to the remote console 30 and the local console 40 a message that an operation is available. The local console 40 receives the message over web sockets. The remote console 30 receives the message through a CHIF tunnel 15 through the driver layer of the BMC 20, which forwards the event as a web socket packet 25 to the web browser of the remote console 30 in a similar method. The same prompt appears on the local console 40 and the remote console 30. The user is them prompted to proceed with whatever operation would address the media being attached. For instance, if it were firmware – a firmware update dialog would appear. If it was OS media – the user would be prompted to install that OS.

The disclosed technique advantageously enables naïve users to easily connect their physical actions (putting the DVD or other media inside the system) to a provisioning operation. The process makes much more sense and is more intuitive to them. Remote users have a seamless connection to the server hardware, regardless of where it is. The plug-and-install functionality makes local and remote access to the system the same and as simple in both cases. Users do not have to understand or read any documentation for even complex tasks. A remote office user or a customer on a call can be instructed to just "add this disk and click OK" to resolve issues.



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